DATE

CERTIFIED MAIL **DRAFT**

Ms. Holly Harwood
PacifiCorp
825 NE Multnomah
Portland, OR 97232

Dear Ms. Harwood:

RE: Merwin Hydroelectric Project (FERC No. 935)
401 Certification / Order No. ____

We have reviewed PacifiCorp's request for certification under Section 401 of the Federal Water Pollution Control Act (Clean Water Act 33 U.S.C. § 1341) for the licensing of the Merwin Hydroelectric Project (FERC No. 935) in Clark and Cowlitz Counties, Washington. On behalf of the State of Washington, the Department of Ecology (Ecology) certifies that reasonable assurance exists that the project will comply with applicable provisions of 33 U.S.C. § 1311, 1312, 1313, 1316, 1317, and other appropriate requirements of State law; subject to and limited by the conditions stated by the enclosed Certification-Order.

This Certification-Order shall be deemed withdrawn if the Federal Energy Regulatory Commission does not issue a license for the project within five (5) years of the date of this issuance of this Certification-Order. This Certification-Order may be modified or withdrawn by Ecology prior to the issuance of the license based upon new information or changes to the water quality standards or appropriate requirements of state law. If the Certification-Order is withdrawn, PacifiCorp will then be required to reapply for state certification under Section 401 of the Clean Water Act.

If you have any questions, please contact Chris Maynard at (360) 407-6484. Written comments and correspondence relating to this document should be directed to Kelly Susewind, Water Quality Program, Department of Ecology, Southwest Regional Office, P.O. Box 47600, Olympia, WA 98504. The enclosed Certification-Order may be appealed by following the procedures described in the Certification-Order.

Sincerely,

Kelly Susewind
Water Quality Section Manager
Southwest Regional Office
Washington State Department of Ecology

KS/CM:lmc
Enclosure

cc: Magalie Roman Salas, FERC Secretary
Jon Cofrancesco, FERC Project Lead

cc: (Continued)

FERC Service List for P-935
Dick Wallace, Department of Ecology, SWRO Regional Director
Chris Maynard, Department of Ecology, Water Quality Program, SWRO
Kim VanZwalenburg, Department of Ecology, Environmental Shoreline Planner
Loree Randall, Shorelands and Environmental Assistance Program, HQ-Dept of Ecology
Joan Marchioro, State of Washington Office of Attorney General
Brian Walsh, Water Resources Program, HQ-Dept of Ecology
Mark Pacifico, Enforcement Officer, SWRO-Dept. of Ecology
SWRO Files: FERC/Merwin Hydroelectric Project

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF GRANTING A	)	**DRAFT CERTIFICATION-ORDER**
WATER QUALITY CERTIFICATION TO:	)	**NO. DE __WQCR-____**
PacifiCorp, Inc.	)	Licensing of the Merwin Hydro-
in accordance with 33 U.S.C. 1341	)	Electric Project (FERC No. 935),
FWPCA § 401, RCW 90.48.260	)	Clark and Cowlitz Counties,
and WAC 173-201A	)	Washington

TO: Holly Harwood
PacifiCorp
825 NE Multnomah
Portland, OR 97232

On December 2, 2005, PacifiCorp filed an application with the State of Washington Department of Ecology (Ecology) requesting issuance of a certification under the provisions of Section 401 of the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. § 1341) to be submitted with its application for a license to the Federal Energy Regulatory Commission (FERC) for the Merwin Hydroelectric Project.

1.0 Nature of Project

The Merwin Hydroelectric Project (Merwin or Project) is one of a total of four hydroelectric projects on the North Fork of the Lewis River (Lewis River). Starting upstream, the projects are Swift No. 1, Swift No. 2, Yale, and Merwin. The Lewis River flows west from the Cascade Mountain Range and its western foothills 93 miles into the Columbia River near the town of Woodland,Washington. Two volcanic peaks, Mount Adams and Mount St. Helens lie on the northern and eastern edges of the basin. The Project is managed for power generation, with a capacity of 136 megawatts and for flood control, recreation, and fish resources.

Merwin is located at river mile 19.5 on the North Fork of the Lewis River. Merwin includes a 313-foot high, 1,300 foot long concrete dam structure. Merwin Dam forms a 14.5 mile-long reservoir, Lake Merwin. At full pool, the center of the 15.5 foot diameter intakes to the turbines are 195.1 feet below the surface of the reservoir. Flows are directed through three turbines at the base of the dam into the Lewis River.

2.0 Authorities

In exercising authority under Section 401 of the Clean Water Act (33 U.S.C. § 1341) and RCW 90.48.260, Ecology has investigated this application pursuant to the following:

1) Conformance with all applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under Sections 301, 302, 303, 306, and 307 of the Clean Water Act (33 U.S.C. Sections§§ 1311, 1312, 1313, 1316, and 1317);

2) Conformance with any and all applicable provisions of Chapter 90.48 RCW, including the provision to use all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010; and

3) Conformance with the state water quality standards as provided for in Chapter 173-201A WAC authorized by 33 U.S.C. 1313 and by Chapter 90.48 RCW, and with other appropriate requirements of state law.

3.0 Findings

Background Information About The Project

1) Merwin is managed for power generation, with a capacity of 11,470 cfs and 136 megawatts, and for flood control, recreation, and downstream fish enhancement.

2) The 'North Fork' Lewis River watershed is 93 miles long and covers 1050 square miles and ranges in elevation from 12,281 feet above mean sea level (msl) at the summit of Mount Adams to 8 feet msl at the confluence with the Columbia River (RM 87.5) near the town of Woodland, Washington. The majority of the Lewis River basin is forested, with an area of approximately 30 square miles of upper basin denuded by the eruption of Mount St. Helens in 1980.

3) The mainstem of the Lewis River is known as the North Fork Lewis River, and flows southwesterly from its source at Mount St. Helens and Mount Adams through the Swift reservoir to Swift No. 1 Dam (RM 47.9), a canal bypassing the main channel to Swift No. 2 Dam (RM 44), Yale reservoir to Yale Dam (RM 34.2), and Merwin Reservoir to Merwin Dam (RM 19.5). PacifiCorp owns and operates Swift No. 1, Yale, and Merwin Dams. Cowlitz County PUD owns Swift No. 2 Dam, which is operated by PacifiCorp.

4) Construction of Merwin Dam began in 1929 and was complete with a single turbine in 1932. Two additional turbines were added in 1949 and 1958, respectively.

5) Merwin is operated in a coordinated system with these three other hydroelectric projects. Merwin Dam typically passes water through its turbines to regulate flows from the other upstream dams toward meeting minimum instream flows downstream in the Lewis River.

6) Reservoir levels usually fluctuate between 235 feet msl in the summer to 239.6 msl feet at full pool. Normal full pool is 239.6 feet msl. The reservoir usually fluctuates minimally due to peaking operations at Yale Dam. The minimum operating level is 165 feet msl.

7) Merwin does not have structural facilities to allow for upstream migration of fish.

8) The primary fish in the Merwin reservoir, are char (bull trout), cutthroat trout, Kokanee, rainbow trout, mountain whitefish, largescale suckers, and other resident fish species. Anadromous fish remain limited to below Merwin Dam except those excess hatchery fish planted in the reservoir to supplement the sport fishery.

9) A Settlement Agreement was signed on November 30, 2004 and filed with FERC on December 9th, 2004. This agreement represented more than three years of collaboration between 26 parties interested in the Lewis River hydroelectric projects. In this agreement, PacifiCorp and Cowlitz PUD agreed to contribute considerable resources towards the protection, mitigation and enhancement of fish resources, recreation, and aesthetics. Some of the requirements reflected in this Certification-Order are a direct result of the efforts and numerous studies conducted by the parties involved.

Compliance with Standards

10) Existing Water Quality: Several water quality studies were performed to assess the existing water quality of the Lewis River hydropower projects. These studies analyzed the water quality characteristics of concern for each stretch of the Lewis River system.

Table 1. Existing Water Quality*

Parameter	Location	Existing Water Quality
Temperature	Merwin Lake	Temperature profile with most pronounced stratification at ~35 feet from July through October with bottom temperatures ~8°C throughout the year and surface temperatures reaching 23°C in the summer. Little or no stratification seen in winter months. Meets water quality criteria
	Merwin Tailrace	Range:~3-5°C in Feb/March to ~15°C in Sept Meets water quality criteria
TDG	Merwin Tailrace	No TDG exceedances were found during turbine ramp up and ramp down. TDG excedances may occur during large spills
pH, conductivity, D/O, turbidity		All meet water quality criteria. D/O fell below 8 m/L at ~150 feet and below in Lake Merwin in August, September, and October.

*Based on:

1. Preliminary Water Quality Study, PacifiCorp Environmental Services July 1995
2.1996-1998 WQ Study found in Final Technical Report, Aquatic Resources, Yale Hydro-electrical Project, March 1999.
3. final Licensee's 2001 Technical Study Status Reports for the Lewis River Hydroelectric Projects, Volume 4, April, 2002

11) Total Dissolved Gas (TDG) exceedances have not been found to occur below the Merwin Dam during current operating procedures. The turbines at Merwin were designed to use air to reduce cavitation on the turbine blades as the generators are powering up and powering down during electricity demand cycles at the beginning and end of each day. However, the continuous operation of the turbines at Merwin to provide regulated flows in the Lewis River does not cause water quality criteria of 110% TDG exceedance.

12) TDG exceedances may occur below the dam when the dam spills water through the spillway to this reach. This is because the 206-foot-long spillway structure has the potential to plunge water and thus entrain air into the tailwater pool to 60-foot depths. Flows above the 7-day 10 year flood (7Q10) are exempt from the Water Quality Standards (WAC 173 201A-060 (4)(a)). For Merwin Dam, these river flows are calculated to be 32,884 cfs. Spills above the hydraulic capacity of the dam and below the 7Q10 flood flow are expected to occur and average of once or twice per year to control reservoir levels during periods of high rain and/or snowmelt. At lower spill flows, the five taintor gates can be operated to reduce plunging flows and thus reduce TDG entrainment.

13) This Certification-Order requires minimum instream flows, ramping rates, and plateau flows.

14) Dissolved oxygen levels below 50 meters in the forebay of the dam were less than 8 m/L in September and October. While this does not exceed the water quality criterion for Merwin Reservoir, turbine released water into the lower river has the potential to contain this low amount of dissolved oxygen and thus exceed the water quality criterion in the river. However to date, the lowest readings in the Lewis River below Merwin Dam during September and October were 9.7 mg/L, which were within the water quality criterion.

15) Temperatures in the top ~25 feet of Merwin Reservoir near the forebay of the dam were found to be greater than 18°C from July through September. The cool water released from the deep water intakes into the Lewis River maintains Lewis River water temperatures below 18°C during these months.

16) There is reasonable assurance that the other water quality characteristics listed in the water quality standards will be met.

4.0 Conditions

Through issuance of this Certification-Order, Ecology certifies that it has reasonable assurance that the operation of the Merwin Dam and activities associated with its continued operation as conditioned will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 USC § 1341, RCW 90.48.120 , RCW 90.48.260, and Chapter 173-201A WAC, this water quality certification is granted to PacifiCorp for the Merwin Hydroelectric Project (FERC No. 935) subject to the conditions within this Certification-Order.

Certification of this project does not authorize the PacifiCorp to exceed applicable state water quality standards (Chapter 173-201A WAC). Furthermore, nothing in this Certification-Order shall absolve PacifiCorp from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments occurring as a result of activities associated with project operations and FERC license conditions

4.1 General Requirements

1) The project shall comply with all water quality standards (currently codified in ch. 173-201A WAC), ground water quality standards (currently codified in ch. 173-200 WAC), and sediment quality standards (currently codified in ch. 173-204 WAC) and other appropriate requirements of state law. The conditions below set forth adaptive management processes and measures to achieve full compliance with standards and constitute a water quality attainment plan under WAC 173-201A-510(5) for TDG and temperature.

2) In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the state Water Pollution Control Act (ch. 90.48 RCW), or changes in or amendments to the Clean Water Act, such provisions, standards, criteria or requirements shall apply to this project and any attendant agreements, orders or permits.

3) Discharge of any solid or liquid waste to the waters of the state of Washington without approval from Ecology is prohibited.

4) PacifiCorp shall obtain Ecology review and approval before undertaking any change to the project or project operations that might significantly and adversely affect the water quality or compliance with any applicable water quality standard (including designated uses) or other appropriate requirement of state law.

5) This Certification-Order does not exempt compliance with other statutes and codes administered by federal, state, and local agencies.

6) The Washington State Department of Fish and Wildlife (WDFW) requires a Hydraulic Project Approval (HPA) (under 75.20 RCW) for work in waters of the State. PacifiCorp shall obtain a HPA from WDFW for any activities that require a HPA, prior to the beginning of those activities, and must comply with all conditions of the applicable HPA. To ensure compliance with HPA requirements, persons planning to conduct work under a Corp of Engineers nation-wide permit must contact WDFW at: Washington Department of Fish and Wildlife, 600 Capitol Way North, Olympia, WA 98501-1091, (360) 902-2200. For further information on HPA requirements and WDFW contacts, visit the following respective web pages: http://www.wdfw.wa.gov/hab/hpapage.htm, http://www.wdfw.wa.gov/depinfo.htm.

7) Ecology retains the right, by further order, to modify schedules or deadlines provided under this Certification-Order or provisions it incorporates.

8) Ecology retains the right by Order to require additional monitoring, studies, or measures if it determines there is likelihood that violations of water quality standards or other appropriate

requirements of state law have or may occur, or insufficient information exists to make such determination.

9) Ecology reserves the right to amend this Certification-Order if it determines that the provisions hereof are no longer adequate to provide reasonable assurance of compliance with applicable water quality standards or other appropriate requirements of State law. Any such amended Certification-Order shall take effect immediately upon issuance, unless otherwise provided in the amended Certification-Order, and may be appealed to the Pollution Control Hearings Board (PCHB) under ch. 43.21B RCW.

10) Ecology reserves the right to issue orders, assess or seek penalties, and to initiate legal actions in any court or forum of competent jurisdiction for the purposes of enforcing the requirements of this Certification-Order.

11) The conditions of this Certification-Order shall not be construed to prevent or prohibit PacifiCorp from either voluntarily or in response to legal requirements imposed by a court, the FERC, or any other body with competent jurisdiction, taking actions which will provide a greater level of protection, mitigation, or enhancement of water quality or of existing or designated uses.

12) If five (5) or more years elapse between the date this Certification-Order is issued and issuance of the new FERC license for the Project, this Certification-Order shall have deemed to be expired and denied at such time and PacifiCorp shall send Ecology an updated application for a Clean Water Act Section 401 Certification that reflects then current conditions, regulations and technologies. This provision shall not be construed to otherwise limit the reserved authority of Ecology to withdraw, amend, or correct the Certification-Order before or after the issuance of a FERC license.

13) This Certification-Order may be modified or withdrawn by Ecology prior to the issuance of the license based upon significant new information or changes to water quality standards or appropriate requirements of state law.

14) Copies of this Certification-Order and associated permits, licenses, approvals and other documents shall be kept on the Project site and made readily available for reference by PacifiCorp, its contractors and consultants, and by Ecology.

15) PacifiCorp shall allow Ecology access to inspect the project and project records required by this Certification-Order for the purpose of monitoring compliance with its conditions. Access shall occur after reasonable notice, except in emergency circumstances.

16) PacifiCorp shall, upon request by Ecology, fully respond to all reasonable requests for materials to assist Ecology in making determinations under this Certification-Order and any resulting rulemaking or other process.

17) Any work that is out of compliance with the provisions of this Certification-Order, or conditions that result in distressed, dying or dead fish, or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, or turbidity greater than 5 NTU over background is prohibited. If these conditions occur, PacifiCorp shall immediately take the following actions:

    a) Cease operations at the location of the violation to the extent such operations may reasonably be causing or contributing to the problem.

    b) Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.

    c) Notify Ecology of the failure to comply. Oil or chemical spill events shall be reported immediately to Ecology's 24-Hour Spill Response Team at 800 258-5990 within 24 hours. Other non-compliance events shall be reported to Ecology's Federal Permit Manager at 800

424-8802.

d) Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

e) Observed violations at the project shall be highlighted in the annual monitoring report.

Compliance with these requirements does not relieve PacifiCorp from responsibility to maintain continuous compliance with the terms and conditions of this Certification-Order or the resulting liability from failure to comply.

18) The project shall meet the Class A narrative standards and protect the beneficial uses listed in WAC 173-201A-030.

4.2 Instream Flows and Ramping Rates below Merwin Dam

The project shall comply with the instream flow measures identified in the Settlement Agreement signed November 30, 2005, submitted to FERC December 9, 2005, and provided herein as Exhibit A.

4.3 Total Dissolved Gas (TDG)

1) The Project shall not cause any exceedance of the TDG water quality criteria as specified in WAC 173-201A 030 (2)(c)(iii) and 173-201A-060 (4)(a) and (b) in any waters of the state, including all waters of the Project.

2) If the water quality criteria for TDG is modified over the term of the license, such modified criteria shall apply to this project.

3) PacifiCorp shall operate Merwin Dam to minimize the TDG associated with air-injected to turbine flows to within 110% TDG.

   a) PacifiCorp shall continue to perform water quality monitoring in turbine water below Merwin Dam for turbine air injection generated TDG.

4) PacifiCorp shall manage spill to minimize TDG production to within 110% saturation.

   a) PacifiCorp shall monitor spill water during spill events as specified in the monitoring plan in Exhibit B.

   b) Within six (6) months of the discovery of any exceedance of the 110% TDG criterion caused by spill, PacifiCorp shall submit to Ecology for review and approval a TDG Water Quality Attainment Plan (TDG WQAP). The TDG WQAP plan shall include:

      i. A description of standard Project operations with regard to minimizing TDG associated with spills;

      ii. A description of how the Project will minimize all spills that produce TDG exceedances at the Project;

      iii. An evaluation of all potential structural and operational improvements to minimize TDG production and preferred alternatives;

      iv. A timeline showing when operational adjustments will occur; and

      v. A schedule for construction.

   c) The Project shall operate according to the approved TDG WQAP with the objective of eliminating TDG exceedances.

d) Upon approval of the TDG WQAP, PacifiCorp shall immediately begin the necessary steps identified in the TDG WQAP (if any) to modify the dam structure to eliminate TDG exceedances.

e) If monitoring to test the effectiveness of gas abatement controls implemented through the TDG WQAP shows the TDG abatement measures identified in the Plan and subsequently employed are not successful in meeting the water quality criterion within the first ten (10) years of discovery of TDG criterion exceedances caused by spill, Ecology will require further activities to meet water quality criterion.

f) Strict compliance with meeting the 110% TDG criteria is waived when flows in the Lewis River exceed the rate equivalent to the 7Q10 flows as defined in WAC 173-201A-060(4)(a). At the writing of this certificate, the controlled 7Q10 flow for the Lewis River at Merwin Dam is 32,884 cfs. PacifiCorp or Ecology may request to reassess and modify the established 7Q10 flow; any modified flow shall be implemented following approval by Ecology.

For a controlled 7Q10 flow to qualify for the TDG exemption, it must be accompanied by a large storm event that provides an equivalent amount of water to the drainage basin. Calculations show that this is equivalent to ___ inches per 24-hour period in the vicinity of the Project. It is recognized that spills are often required in anticipation of or after a 7Q10 storm event. For this project, the TDG exemption will be extended to include the 48-hour period prior to and after any qualifying 7Q10 storm event. Allowance for this 48-hour extension encourages emergency spills of longer duration that produce lower levels of TDG. It is preferred to produce lower levels of TDG over a longer duration rather than produce high, potentially acutely-toxic levels of TDG over a shorter duration.

Additionally, elevated TDG levels formed during qualifying 7Q10 events at Swift No. 1 are often observed several days later at Merwin Dam forebay. This observed spike of TDG at the Merwin Dam forebay shall not be considered a TDG criteria exceedance if it was formed during a qualifying 7Q10 event at Swift No. 1.

6) During high flows, including those greater than the 7Q10, PacifiCorp shall manage spill levels and spill gate configuration to minimize TDG production.

4.4 Temperature and Dissolved Oxygen

1) In and Below Merwin Dam
The Project shall not cause any violation of the temperature and dissolved oxygen water quality criteria as specified for Class 'A' waters, WAC 173-201A-030(2)(c)(ii) and (iv), in and below Merwin Dam. PacifiCorp shall not cause these waters to exceed 18°C. nor dissolved oxygen concentrations to go below 8 mg/L. If the presence or operation of the dam causes violation of these criteria, PacifiCorp shall modify its operation to the extent necessary to ensure that the project does not cause such exceedance.

2) Merwin Reservoir
The Project shall not cause any violation of the temperature and dissolved oxygen water quality criteria as specified for Lake Class waters in WAC 173-201A-030(5) in Merwin Reservoir. If the presence or operation of the Merwin Dam causes violation of these criteria, PacifiCorp shall modify its operation to the extent necessary to ensure that the Project does not cause such exceedance. The Lake Class temperature criterion that applies to the reservoir mandates no measurable change from natural conditions.

3) Upper Merwin Reservoir Compliance Schedule: Large temperature fluctuations at the upper end of Merwin Reservoir are due to operation of Yale Dam. These temperature fluctuations are

exacerbated due to the stratification in Merwin Reservoir. There may be some opportunities to reduce temperature fluctuation at the upper end of Merwin Reservoir through operational modifications at Merwin Dam in conjunction with adjustments at Yale Dam.

a) PacifiCorp shall develop a Temperature Water Quality Attainment Plan (TWQAP) for the Upper Merwin Reservoir/Yale tailrace that, in accordance with WAC 173-201A-510(5), provides a detailed strategy for maintaining the highest attainable water quality condition to best protect the biota with respect to temperature that is feasible to achieve. The TWQAP shall identify and evaluate potential reasonable operational and structural changes to decrease temperature fluctuation in the Upper Merwin Reservoir/Yale tailrace. Any changes that would conflict with other conditions of this Certification-Order require prior approval by Ecology. The plan shall also identify the temperature regime that is feasibly achievable, such that the temperature in the discharge is protected to the highest degree feasible. A Responsiveness Summary shall be incorporated into the TWQAP that evaluates the effectiveness of the modifications (if any) and identifies follow-up studies and actions that can be performed to further improve temperature based on the initial findings.

b) A draft of the TWQAP shall be submitted to Ecology within one (1) year of license issuance. The TWQAP must include a reasonable compliance schedule for carrying out an adaptive process for evaluating feasible technical and operational changes that will improve water quality protection within ten (10) years of license renewal. This process may include modeling and physical testing of operational changes, and modeling changes in structural revisions and testing those structural revisions that can reasonably be implemented within the ten year period. Significant structural or operational revisions that may impose potentially unreasonable costs or create potentially unreasonable societal effects may be evaluated as part of a formal Use Attainability Analysis consistent with the federal and state water quality regulations after the ten (10) year compliance period has ended.

4) PacifiCorp shall monitor for temperature and dissolved oxygen in the forebay and tailrace of Merwin Dam, in addition to any temperature monitoring required in the TWQAP.

5) If the water quality criteria for temperature and/or dissolved oxygen is modified over the term of the license, such modified criteria shall apply to this project.

4.5 Construction Projects and Habitat Modifications

The following applies to all in-water or near-water construction work related to the Project that can impact surface- or ground-water quality. This includes, but is not limited to, construction, operation, and maintenance of fish collection structures, generation turbines, penstocks, hatcheries, transportation facilities, portable toilets, boat ramps, access roads, transmission corridors, structures, and staging areas. This also includes silviculture-related activities and emergencies for all activities related to Project operation.

1) If water quality exceedances are predicted as being unavoidable during construction or maintenance of a project, a short-term modification must be applied for in writing to Ecology at least three (3) months prior to project initiation. If any project has a long-term impact on a regulated water quality parameter, characterization monitoring must be performed for the impacted parameter(s), and a monitoring plan must be outlined in the Water Quality Protection Plan discussed below. This may require additional management practices to minimize impacts over the license period.

2) A Water Quality Protection Plan (WQPP) shall be prepared, and followed, for all Project-related work that is in- or near-water that has the potential to impact surface- and/or groundwater quality. The WQPP shall include control measures to prevent contaminants from entering surface water and groundwaters, and shall include, but not be limited to, the following elements:

   a) Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall specify the Best Management Practices (BMPs) and other control measures to prevent contaminants entering the Project's surface water and groundwaters. The SWPPP shall address the pollution control measures for PacifiCorp's activities that could lead to the discharge of stormwater or other contaminated water from upland areas. The SWPPP must also specify the management of chemicals, hazardous materials and petroleum (spill prevention and containment procedures), including refueling procedures, the measures to take in the event of a spill, and reporting and training requirements.

   b) An In-Water-Work Protection Plan (IWWPP) shall be consistent with the SWPPP and shall specifically address the BMPs and other control measures for PacifiCorp activities that require work within surface waters. In addition to construction projects, this work includes, but is not limited to, the application of herbicides, pesticides, fungicides, disinfectants, and lake fertilization. Turbidity and dissolved oxygen shall be monitored upstream of the location where in-water construction is taking place and at the point of compliance (as defined in WAC 173 201A-110(3)(a-d)) during construction. Samples shall be taken at a minimum of once each day during construction in or adjacent to any water bodies within the Project area that may be affected by the construction. The In-Water-Work Protection Plan shall include all water quality protection measures consistent with a HPA for the Project.

   c) The WQPP shall include procedures for monitoring water quality, actions to implement should a water quality exceedance occur, and procedures for reporting any water quality violations to Ecology. The WQPP shall include all water quality protection measures consistent with a HPA for the Project. The WQPP shall be submitted to Ecology for review and approval at least three (3) months prior to Project initiation, and a copy of the WQPP shall be in the possession of the on-site construction manager, and available for review by Ecology staff, whenever construction work is under way.

   d) When construction project meet the coverage requirements of the NPDES and State Waste Discharge General Permit for Stormwater Discharges Associated with construction activity, PacifiCorp is required to apply for this permit and to comply with the terms and conditions of the permit.

3) Best Management Practices

   a) Work in or near the reservoir, water within the dam, the river, or any wetlands shall include all reasonable measures to minimize the impacts of construction activity on waters of the state. Water quality constituents of particular concern are turbidity, suspended sediment, settleable solids, oil and grease, and pH. These measures include use of Best Management Practices (BMPs) to control erosion and sedimentation, proper use of chemicals, oil and chemical spill prevention and control, and clean-up of surplus construction supplies and other solid wastes.

   b) During construction, all necessary measures shall be taken to minimize the disturbance of existing riparian, wetland or upland vegetation.

   c) All construction debris shall be properly disposed of on land so that it cannot enter a waterway or cause water quality degradation to state waters. Retention areas or swales shall be used to prevent discharging of water from construction placement areas.

   d) PacifiCorp shall ensure that any fill materials that are placed for the proposed improvements to habitat in any waters of the state do not contain toxic materials in toxic amounts.

4) Maintain Turbidity Standards

   a) Certification of this project does not authorize PacifiCorp to exceed the turbidity standard for Class A waters beyond the mixing zone described below. Turbidity in Class A waters shall not exceed 5 NTU over background turbidity when turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.

   b) Consistent with WAC 173-201A-100(7) and –110(3), a mixing zone is established within which the turbidity standard is waived. The mixing zone is established to allow only temporary exceedances of the turbidity criteria during and immediately after in-water work. The temporary turbidity mixing zone shall be as follows:

      i. For waters up to 10 cfs flow at the time of construction, the point of compliance shall be 100 feet downstream from activity causing the turbidity exceedance.

      ii. For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be 200 feet downstream from activity causing the turbidity exceedance.

      iii. For waters above 100 cfs flow at the time of construction, the point of compliance shall be 300 feet downstream from activity causing the turbidity exceedance.

5) The above conditions do not relieve the PacifiCorp from needing to obtain all the applicable permits such as NPDES pemits, shoreline permits and HPAs.

4.6 Oil Spill Prevention and Control

1) No oil, fuel, or chemicals shall be discharged into waters of the state, or onto land with a potential for entry into waters of the state as prohibited by Ch. 90.56 RCW.

2) Contain and remove from the water, visible floating oils released from construction or Project operation.

   a) In the event of a discharge of oil, fuel or chemicals into state waters, or onto land with a potential for entry into state waters, immediately begin and complete containment and clean-up efforts, taking precedence over normal work. Clean-up shall include proper disposal of any spilled material and used clean-up materials.

   b) Do not use emulsifiers or dispersants in waters of the state without prior approval from Ecology, Southwest Regional Office.

   c) Within three (3) months of receiving the license from FERC, establish an Ecology-approved on-site spill cleanup material inventory. Maintain this on-site inventory and a complete inventory list.

   d) Project Operators shall be familiar with and trained on use of oil spill cleanup materials. In the event of an oil spill, properly dispose of used/contaminated materials and oil and as soon as possible restock new supplies. Include records of proper disposal in the oil consumption records and keep copies of disposal records of contaminated cleanup supplies on-site for inspection.

   e) Ensure that operational work boats and trained boat operators are available at the project. Install mechanisms as appropriate to safely launch or lower work boats into areas where work boats would be deployed in the event of an oil spill. These mechanisms must be pre-approved by Ecology.

   f) Keep SPCC Plans as required and historical spill records on-site. Provide these to Ecology immediately upon request.

g) Identify and map floor drains. Post these maps at the Project in a conspicuous location for use by Operators and other personnel in the event of an oil spill. Seal floor drains that are no-longer needed.

h) Install stair cases, permanent ladders, etc. allowing for oil spill response staff to safely reach areas that could, in the event of an oil spill, need to be accessed to deploy sorbent pads and boom materials.

3) Oil-Water Separators (OWS)

a) By the time of issuance of the FERC license, have a maintenance plan for the OWS. This maintenance plan must include a process to periodically test the oil-stop valves and insure quality assurance that they will work as designed.

b) OWS shall only admit rain and water run-off originating in the containment area that is intended to drain into the OWS.

c) Perform periodic and appropriate maintenance and inspection on a schedule to include cleaning of sediment.

d) Clean and service the OWS in the event of an oil spill incident where oil is introduced into the OWS.

e) Evaluate each OWS for inflows to account for the total volume of all transformers located in the containment area plus 10 per cent. Verify and conduct corrective action that if a failure of all containers in the containment area occurs during a major rain event, insure that oil would not be "washed through" the OWS during such an event.

4) Transformers:

a) Transformer deck containment area surfaces must be impervious. Conduct periodic inspections and re-surfaced areas, fill cracks, caulk metal plate footings or otherwise ensure that containment areas will contain all spill fluids.

b) Obtain pre-approval from Ecology before breaching containment areas for reasons other than containment area maintenance.

c) Remove oil from transformers prior to moving them from the transformer containment area.

d) Snowy or icy conditions require daily inspections of transformer deck containment area including an inspection of the drains leading to the OWS for freeze-up conditions. Inspect the condition of the transformers and the transformer cooling system to insure that water pipes do not break and cause an oil leak or spill. Water cooled transformers that are off-line must have the cooling systems properly secured at the time of transformer decommissioning, regardless of the season or time of year to insure that in the event of freezing weather, the cooling systems will not freeze-up and cause a transformer oil leak or spill. Remove any observed rain water pooling in the containment areas.

5) Sumps:

a) Locate oil sensors on the surface of the water in each sump in addition to the oil sensors located at the bottom of each pumping cycle. Inspect and test these sensors every three (3) months or sooner if needed to insure that they will work as designed. Include in the inspection provisions to verify that the oil sensors located at the bottom of each pumping cycle are properly placed at the proper level. Visually inspect all of these areas each week or immediately if oil is suspected to be present such as in the event of an oil sensor alarm or the observance of an oil or grease spill in the turbine pit of sufficient volume to reach the sump.

Any oil detected in the sumps requires immediate cleanup and Emergency Management Division (EMD) and National Response Center (NRC) notification.

b) Immediately repair oil leaks in the turbine pit that are of sufficient volume to can reach the sump and that can not be placed under a containment pan. Immediately repair water leaks located in the turbine pit area that are leaking at a volume of greater than one gallon per hour.

c) Install hand rails and mechanisms so the sump covers can be removed for a visual inspection of the sump. Provide water-proof lighting in the sumps or spotlights adequate to view the surface water in the sumps. Provide a mechanism to satisfactorily deploy and recover sorbent boom in the sumps at each project.

6) Oil, fuel and chemical storage containers, containment areas, and conveyance systems:

a) Provide proper containment around each storage container (including transformers) or around a combination of storage containers as appropriate and agreed upon by Ecology. Proper containment equals the volume of the container plus 10 per cent.

b) Recalculate required containment areas to insure proper containment still exists after major equipment changes. Example: when converting from water cooled transformer to an air cooled unit, re-calculate oil volume and compare to containment area. Calculate containment volumes from *maximum* storage volumes, not normal oil level volumes.

c) Provide external oil level gauges for governor oil tanks, transformers and other oil tanks that contain over 100-gallons of oil. Provide appropriate level markings for these gauges. Provide a sign or other means at each tank, near the tank level gauge, that describes these level markings and the relationship of each inch vs. how many gallons (in the case of a glass tube type of gauge). Dial gauges must also describe oil volume in gallons or have a sign or other means provided at each reservoir that adequately describes dial movement in relation to gallons. Provide a sign or other indication that shows ¼, ½, ¾, and full gauge readings or indications in gallons. If equipment must be placed in a special mode of operation, prior to level observance, this must also be posted. Example: wicker gate ram position or other hydraulic ram positions, prior to oil level reading.

d) Regularly check all fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc, for drips or leaks. Maintain and properly store them to prevent spills into state waters.

e) Do not refuel equipment within 50 feet of rivers, creeks, wetlands, or other waters of the state.

f) When working on transformers and other equipment that might spill or drip oil provide full oil spill containment capacity plus 10 per cent.

g) Inspect containers once per week. Maintain container Inspection sheets to include: maximum container volume and an exact reading recording of the oil level by the staff/operator conducting the inspection. Weekly inspection readings must be consistent; provide training to the staff/operator to ensure consistent and accurate readings.

h) Keep oil consumption records maintained on-site; provide these records to Ecology immediately upon request.

i) In the event that the project modifies the oil transfer operation to include hard-plumbing to reservoirs such as the governor oil tank from the oil tank room, or other extensive modifications, Ecology notification and approval of such modification must be conducted.

j) Contain wash water containing oils, grease, or other hazardous materials resulting from wash-

down of equipment or working areas for proper disposal, and do not discharge this water into state waters.

7) Other:

   a) Maintain site security at the project site to reduce chance of oil spills.

   b) Initiate, plan for, document, and train staff for the deployment of General Response Plan and boom strategies for each project. Review and update as needed annually.

4.7 Herbicide/Pesticide/Fertilizer Applications

1) Prior to the use of herbicides, pesticides, fungicides, disinfectants, fertilizers, or algicides in waters of the state, coverage under the current Aquatic Pesticides Permit shall be obtained, and conformance with any other applicable state requirement such as SEPA, shall be attained.

2) BMPs and other control measures for the application of herbicides, pesticides, fungicides, disinfectants, fertilizers, or algicides must be addressed in the In-Water-Work Protection Plan. An appropriate water quality monitoring plan shall be developed prior to the application and shall be implemented for all related work.

3) Prior to the use of herbicides, pesticides, disinfectants, fertilizers, or algicides adjacent to waters of the state, PacifiCorp shall follow BMPs to avoid the entry of such materials into waters of the state. Applicable BMPs include, but are not limited to, such actions as hand application and avoiding drift of materials into the water

4.8 Monitoring and Reporting

1) The Water Quality Monitoring Plan (WQMP) PacifiCorp prepared for the FERC as part of the license application process is incorporated as a requirement of this Certification-Order. And shall be followed except as further modified by this Certification-Order. Within one (1) month of issuance of this Certification-Order, PacifiCorp shall submit to Ecology for its review and approval a revised WQMP incorporating any additional monitoring requirements set forth in this Certification-Order.

2) Monitoring pursuant to the WQMP shall begin as soon as practicable and in no event shall monitoring begin any later than one (1) year after issuance of this Certification-Order. An exception to the one – year requirement may be made for TDG during spill. In that case, PacifiCorp must begin monitoring during the first spill event after the Certification-Order is issued.

3) Representative water quality measurements shall be made for the parameters listed in Table 2 at the identified locations and frequencies.

Table 2. Water Quality Monitoring Schedule

Parameter	Location	Depths (ft)	Frequency	Duration
Flow	Lewis River below Merwin Dam at USGS Ariel gauge	--	15 minutes	Ongoing

Total Dissolved Gas (TDG)	Merwin Dam Turbine Outlets	15’	Hourly	One month before and after operational changes reallocate duration or quantity of air into turbines
	Merwin tailrace downriver of aeration zone	~10’-15’	During spill events: Hourly, 24 hrs before to 48 after event	Ongoing unless TDG during spill is found not to exceed 110% during river flows approaching 33,884 cfs
Temperature	Merwin Forebay	1, 5, 10, 20 40, 60, 100, 200	May 1–Oct 31: Hourly	Ongoing
	Merwin tailrace	1	Hourly all year	Ongoing
Dissolved Oxygen	Merwin tailrace	1	September and October hourly	Ongoing until dissolved oxygen sags are found not to exceed 8 m/L for a period of 5 years
Oil & Grease	Record amounts of oil, grease and hydraulic fluids used	n/a	Weekly	Ongoing for the term of the license

4) All water quality monitoring shall meet accepted standards for data quality. The WQMP shall include monitoring and data evaluation procedures and objectives that ensure data quality. Data quality procedures shall be consistent with United States Environmental Protection Agency and Ecology guidance on this subject.

5) The WQMP shall be updated annually by amendment to reflect any changes in monitoring parameters, schedule, or methodology. These amendments, or a notification of no change, shall be sent to Ecology for review and approval by December 1st of each year. Ecology will provide its revisions and approval for the WQMP within three (3) months after receipt of an amendment.

6) Data from all water quality monitoring shall be summarized and reported in a format approved by Ecology and submitted annually. Report shall include sample dates, times, locations, and results. Any violations of state water quality standards shall be highlighted. The report shall be submitted by March 1st of the year following the collection of the data. Data reports shall be submitted to Ecology’s, Water Quality Program, Southwest Regional Office.

7) PacifiCorp may request to modify or eliminate parts of the monitoring program after a minimum of five (5) years of reliable data collection following issuance of the new license. Modifications to this monitoring schedule can be requested by submitting to Ecology reasons for the modifications along with a modified Water Quality Monitoring Plan.

8) A more rigorous water quality sampling program for the listed parameters or additional parameters may be required by Ecology if necessary to protect water quality in the future based on monitoring results, regulatory changes, changes in project operations and/or requirements of TMDLs, or to otherwise provide reasonable assurance of compliance with state water quality standards.

5.0 Order

Any person who fails to comply with any provision of this Certification-Order shall be liable for a penalty of up to twenty thousands dollars per day under the Clean Water Act, and under the state Water Pollution Control Act, for a penalty of up to ten thousand dollars for each day of continuing noncompliance or such other amount as may be authorized under state law as exists now or may be amended during the term of the license.

6.0 Appeal Process

You have the right to appeal this Order to the Pollution Control Hearings Board. Pursuant to chapter 43.21B RCW, your appeal must be filed with the Pollution Control Hearings Board, and served on the Department of Ecology within thirty (30) days of the date of your receipt of this document.

To appeal this Order, your notice of appeal must contain a copy of the Ecology Order you are appealing.

Your appeal must be filed with:

The Pollution Control Hearings Board
4224 – 6th Avenue SE, Rowe Six, Bldg. 2
P.O. Box 40903
Lacey, Washington 98504-0903

Your appeal must also be served on:

The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, Washington 98504-7608.

In addition, please send a copy of your appeal to:

Federal Permit Appeals Coordinator
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

For additional information: Environmental Hearings Office Website: *http://www.eho.wa.gov*

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Ch. 43.21B RCW.

DATED this ___ day of MONTH, 2006 at Olympia, Washington.

_____

Kelly Susewind
Water Quality Section Manager
Southwest Regional Office
Department of Ecology
State of Washington

Exhibit A
Section 6.2 of the Settlement Agreement Concerning Relicensing of the Lewis River Hydroelectric Projects signed November 30, 2005

6.2 **Flow Fluctuations Below Merwin Dam**. Commencing upon Issuance of the New License for the Merwin Project, PacifiCorp shall implement the following operational regimes at Merwin Dam for the duration of the New License for the Merwin Project.

6.2.1 Ramping Rates Below Merwin Dam. All flow rates and Ramping rates described in this Section 6.2.1 shall be measured at the Ariel gage. "Ramping" means those Project-induced increases ("up-Ramping") and decreases ("down-Ramping") in river discharge and associated changes in river surface elevation over time below Merwin Dam caused by Project operations or for Project maintenance. Ramping rate is the rate of change in stage resulting in regulated discharges. Ramping rates in this Agreement are stated in inches or feet of change in the surface elevation of the river per hour. Restrictions on Ramping shall not apply to (a) changes in flows due to natural increases or decreases in tributary input or surface runoff occurring entirely in the reach between Merwin Dam and the Ariel gage (such as changes caused by snowmelt or rain events), (b) PacifiCorp's operations to comply with high runoff procedures, or (c) PacifiCorp's response to emergency conditions related to an imminent threat to life or property. PacifiCorp shall limit the up-Ramping rate to 1.5 feet per hour below Merwin Dam for all periods when flows below Merwin Dam are at or less than hydraulic capacity of the Merwin Project turbines. PacifiCorp shall limit the down-Ramping rate to 2 inches per hour below Merwin Dam for all periods when flows below Merwin Dam are at or less than 8,000 cfs; except that during the period from February 16 through June 15, no down-Ramping shall occur (1) commencing one hour before sunrise until one hour after sunrise and (2) commencing one hour before sunset until one hour after sunset. PacifiCorp shall perform down-Ramping as gradually as practicable and shall avoid up-Ramping fluctuations during down-Ramping periods, to the extent practicable.

6.2.2 Plateau Operations at Merwin Dam. PacifiCorp shall further restrict daily fluctuation in flows below Merwin during the period of February 16 through August 15 of each year by maintaining flow plateaus (periods of near-steady discharge) as provided in this Section 6.2.2. Once a flow plateau is established, PacifiCorp shall maintain the flow plateau for as long a duration as practicable, but flow plateaus may be altered to a new level as a result of changes in natural flow or operational demands on the Lewis River power system, subject to the limitations of this Section 6.2.2. If any Party questions the duration of flow plateaus, they may request a meeting with appropriate PacifiCorp staff to review the information PacifiCorp used in determining when Plateau Steps were required. PacifiCorp shall cooperate in providing necessary information about and explanation of the actions taken. PacifiCorp shall limit changes in flow plateaus during the period of February 16 through August 15 as provided in (a) and (b) below:

a. Plateau Steps. For the purposes of this Agreement, a "Plateau Step" shall be defined to be down-Ramping in flow below Merwin that would result in a change in river elevation of more than 0.2 (2/10) foot at the Ariel gage. A single Plateau Step event will begin when the elevation drops by more than 0.2 (2/10) foot and be deemed complete when (i) the elevation rises by more than 0.2 (2/10) foot or (ii) does not change by more than plus or minus 0.2 (2/10) foot for more than 6 hours. Down-Ramping that results in changes in river elevation of less than or equal to 0.2 (2/10) foot shall not be considered a Plateau Step and will not be included in the accumulated total of Plateau Steps, provided that down-Ramping that results in a change of more than 0.2 (2/10) foot in any six-hour period will be considered a Plateau Step. Plateau Steps shall be limited to no more than one change in any 24-hour period, no more than 4 in any seven-day period, and no more than six in any calendar month. If PacifiCorp is required to release flows from Merwin Dam pursuant to the high runoff procedure, then for each such release pursuant to the

high runoff procedure, down-Ramping to return to a level maintained for more than 6 hours without decreasing river elevation by more than 0.2 (2/10) feet shall not be counted as a Plateau Step. During flood season, if there is less than 5 feet of storage capacity in addition to the required 17 feet of storage capacity under the high runoff procedure, then the first down-Ramping after each flow release to restore the storage capacity shall not count as a Plateau Step. If PacifiCorp uses more than a single release episode to reach or exceed 22 feet of storage capacity, only the down-Ramping after the first such release shall not count as a Plateau Step; the subsequent down-Rampings shall be counted as Plateau Steps. Finally, if PacifiCorp is asked to lower flows below Merwin Dam for public safety reasons or to facilitate aquatics studies, such changes in river level shall not be counted as Plateau Steps.

b. Plateau Changes. An accumulation of Plateau Steps will result in a "Plateau Change" as further defined in this Section. PacifiCorp shall limit Plateau Changes to no more than 20 during the period February 16 through August 15. When flows are greater than or equal to 3,500 cfs below Merwin Dam, a Plateau Change shall occur when any series of consecutive Plateau Steps totals 1 foot of down-Ramping between February 16 through August 15. Any periods of up-Ramping during such period shall be ignored in such calculations. When flows are less than 3,500 cfs below Merwin Dam, a Plateau Change shall mean a series of consecutive Plateau Steps, during the period February 16 through August 15, totaling 0.5 (5/10) foot. Any periods of up-Ramping during such period shall be ignored in such calculations. If a single Plateau Step in a series would cause the total to exceed one foot (when flows are greater than or equal to 3,500 cfs) or one-half foot (when flows are less than 3,500 cfs), the excess shall be counted toward the next Plateau Changes. If a Plateau Step begins when flows are greater than 3,500 cfs and ends when flows are less than 3,500 cfs, the Plateau Change will be determined by adding the fractions of a Plateau Change occurring before and after the river discharge below Merwin Dam passes 3,500 cfs. For example, if a Plateau Step begins when flows are at 5,000 cfs and has measured 6 inches when flows reach 3,500 cfs (one-half of a Plateau Change for flows above 3,500 cfs) and continues to decline an additional 3 inches ending at 3,000 cfs (one-half of a Plateau Change for flows below 3,500 cfs), it would count as one full Plateau Change.

6.2.3 Stranding Study and Habitat Evaluation. By the third anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall complete a stranding study and a habitat evaluation study below Merwin Dam to assess the potential effects of Project operations on steelhead, coho salmon, Chinook salmon, and chum salmon, and their habitats. The total cost to complete both the study and evaluation is estimated to be $300,000. PacifiCorp shall develop the stranding study objectives in Consultation with the ACC, with final approval by NOAA Fisheries and USFWS. The stranding study shall identify measurable factors affecting potential stranding, the relationship of such factors to each other, and the timeframe and season within which stranding may occur. The habitat evaluation study shall evaluate spawning and rearing habitat from Merwin Dam to the downstream end of Eagle Island across a range of minimum flow operational conditions. The design of the study and evaluations shall be limited to the objectives developed above, must be operationally implementable, and any operational changes implemented for the study and evaluation shall not be considered a breach of any other operational restrictions provided in this Agreement, e.g., shall not be considered a Plateau Change under Section 6.2.2. Based upon the results of the study and evaluation, the ACC may recommend to PacifiCorp, subject to the approval of NOAA Fisheries and USFWS, measures to minimize or mitigate stranding of salmonids below Merwin Dam. Such measures may include minor adjustments to instream flow levels, or minor adjustments to Merwin Project operations to address Project impacts below Merwin Dam. PacifiCorp shall consider any suggested

adjustments to operations and flows of the Project, and shall make reasonable, good faith efforts to address such recommendations. In so doing, PacifiCorp should consider impacts on operational benefits of the Project, including, but not limited to, flood management, power generation, and recreational uses. If PacifiCorp determines not to implement the recommendations, because there would be significant impact on Project benefits, the ACC may elect to mitigate the impacts shown by the study and evaluation by development of habitat enhancement projects through the use of the Aquatics Fund.

6.2.4 Minimum Flows Below Merwin Dam. PacifiCorp shall provide the following minimum flows below Merwin Dam during the following time periods, subject to the limitations and requirements provided in Section 6.2.5: (1) July 31 through October 15, 1,200 cfs; (2) October 16 through October 31, 2,500 cfs; (3) November 1 through December 15, 4,200 cfs; (4) December 16 through March 1, 2,000 cfs; (5) March 2 through March 15, 2,200 cfs; (6) March 16 through March 30, 2,500 cfs; (7) March 31 through June 30, 2,700 cfs; (8) July 1 through July 10, 2,300 cfs; (9) July 11 through July 20, 1,900 cfs; and (10) July 21 through July 30, 1,500 cfs. The above flows and timing were designed for the purpose of the maintaining and enhancing species downstream of Merwin Dam, including native fall Chinook. The preceding sentence shall not modify or be used to modify the obligations stated in this Section 6.2.4.

6.2.5 Low Flow Procedures. During years when PacifiCorp projects that sufficient water will not be available to appropriately balance the respective needs of fishery resources, recreation, flood management, and power production, PacifiCorp shall convene a Flow Coordination Committee (the “FCC”) consisting of representatives from PacifiCorp, NOAA Fisheries, USFWS, WDFW, the CIT, and the Yakama Nation. PacifiCorp shall provide the FCC with relevant information, and the FCC shall independently evaluate available data regarding water availability during the projected low flow period and decrease or maintain the minimum flows levels provided in Section 6.2.4 as it deems appropriate. PacifiCorp shall maintain minimum flow levels provided in Section 6.2.4 unless such levels are temporarily decreased by Consensus of the FCC members; provided that if there is an impasse, determinations shall be made by a majority of the agency members of the FCC. Changes requested by the FCC shall not require PacifiCorp to violate its agreement with FEMA concerning high runoff management, as described in Section 12. The FCC shall consider the following interests in modifying minimum flow levels (the order of listing is not intended to indicate priority): (1) the needs of fish species, with a priority on ESA-listed species, including, without limitation, consideration for keeping redds watered, providing rearing habitat for wild fall Chinook, and pulse flows to assist in migration of juvenile fish if such pulse flows are shown to be effective; (2) the need to provide flood management benefits for down river areas; and (3) the desire to refill all Project reservoirs to achieve a combined target of 5 feet of available reservoir storage capacity by July 1, and a target of 15 feet of reservoir storage by Labor Day (to provide reasonable recreation uses between Memorial Day and Labor Day). The Counties and cities that are signatories to this Agreement may designate a local government liaison to the FCC. The liaison’s purpose is to encourage communication between the FCC and local governments. PacifiCorp shall notify the local governments’ liaison (a) when the FCC will be convened and (b) the general content of the agenda. The liaison may provide written comments to the FCC for its consideration.

Exhibit B – Definitions

7Q-10 – The high flow that is calculated to occur only once, for 7 consecutive days during any 10-year period.

BMPs – Best Management Practices to reduce pollution

CWQPP - Construction Water Quality Protection Plan – necessary for all construction projects in, over, or near water.

FERC - Federal Energy Regulatory Commission

FWPCA – Federal Water Pollution Control Act

HPA – Hydraulic Project Approval

IWPP – In Water Work Protection Plan. Part of the CWQPP as described above. This is for work in the water—such as boat ramps or cement work in the water. This does not apply inside the dam when before beginning the project, the water can be completely removed.

MSL – Mean Sea Level

NTU – Nephelometric Turbidity Units

RCW – Revised Code of Washington

RM – River Mile

SWPPP – Stormwater Pollution Prevention Plan –Part of the CWQPP as described above. This is to prevent polluted stormwater from entering the reservoir or river.

TDG – Total Dissolved Gas

TMDL – Total Maximum Daily Load

TWQAP – Temperature Water Quality Attainment Plan

USC - United States Code

USDA-FS - Forest Service of the United States Department of Agriculture

USGS – United Stated Geological Survey

USFWS - United States Fish and Wildlife Service

WAC – Washington Administration Code

WDFW - Washington Department of Fish and Wildlife

WQAP – Water Quality Attainment Plan

WQMP – Water Quality Monitoring Plan

WQS – Water Quality Standards Rule, WAC 173 201A. For further descriptions of terms, refer to the definitions in this rule.